ABSTRACT OF THE INVENTION

A physiological function assisting ~~means~~ device 1 is embedded in the body, and is provided with a transmitter 11 and receiver 12 for communicating with an external ~~control means~~ controller 2. External ~~control means~~ controller 2 controls embedded physiological function assisting ~~means~~ device 1 from the outside. External ~~control means~~ controller 2 is provided with a transmitter 21 and receiver 22 for communicating with physiological function assisting ~~means~~ device 1. Transmitters 11,21 modulate the plane of polarization of laser light, and emit the result as a transmission signal. Receivers 12,22 ~~are provided with a receiving means for~~ selectively receiving light of a specific polarization state. Receivers 12,22 respectively output electric signals corresponding to the polarization state (polarization angle or ellipticity) of the received light. As a result, full duplex communications between a strongly dispersing medium like the human body and the outside is possible, while the power consumed by the internal device can be reduced.